

Overcoming ICT Challenges to Enhance Pedagogy in Algerian EFL Classes

تجاوز تحديات إدماج وسائل الاعلام والاتصال
لتحسين الاداء التربوي

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Abstract

Information Communication Technologies (ICT) have witnessed wide world popularity lately. It has changed all fields of modern life and education is no exception. Hence, Algerian teachers are tempted to adopt ICT to enhance their teaching performances. The objective of this research is to explore teachers' attitudes and perceptions towards technology integration into EFL classrooms in Ain Temouchent secondary schools; and it investigates the challenges they encounter. Both qualitative and quantitative methods were adopted; thus, a semi-structured questionnaire administered to 67 participants from 20 schools in Ain Temouchent. Findings revealed that teachers were eager to integrate ICT but had poor technology training and schools lacked facilities. Despite partial infusion, ICT integration has not reached its pedagogical perspectives, yet. ICT incorporation is, rather, an on-going process that needs more pedagogical training besides positive attitudes, sufficient equipment and various resources.

Keywords: Education in Algeria; English as a Foreign Language; ICT Integration; Challenges; Teachers' Training.

ملخص:

إن وسائل الإعلام والاتصال (و.إ.ت) قد شهدت انتشارا عالميا مؤخرا. قد غيرت الحياة العصرية في كل الميادين بما في ذلك التدريس. في هذا المجال، يحاول الأساتذة الجزائريين إدماج وسائل الإعلام والاتصال (و.إ.ت) في تحسين عملية التدريس. يهدف هذا البحث إلى الكشف عن مواقف وتصورات الأساتذة تجاه إدماج التكنولوجيا في أقسام تدريس الإنجليزية كلغة أجنبية في الطور الثانوي بمدينة عين تموشنت، والتحقيق في التحديات التي يواجهها الأساتذة. اعتمدت منهجية البحث المزدوج: الطرق الكمية والنوعية بتوزيع استبيان شبه منظم على 67 أستاذ عشوائيا في 20 ثانوية بعين تموشنت. كشفت البيانات، بعد جمعها وتحليلها ومقارنتها، على أنه رغم تحفز الأساتذة لإدماج (و.إ.ت) فإن مستوى التدريب متدني وغير كاف بالإضافة إلى عدم توفر الثانويات على المعدات. هناك إدماج جزئي للتكنولوجيا داخل الأقسام، لكنه لم يحقق مبتغاه البيداغوجي حتى الآن. أظهرت

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النتائج أن الإدماج (و.إ.ت) عملية طويلة المدى تحتاج إلى: تدريب بيداغوجي مستمر، مواقف إيجابية، توفر المعدات والموارد المختلفة.

كلمات مفتاحية: التعليم في الجزائر؛ الإنجليزية كلغة أجنبية؛ إدماج وسائل الإعلام والاتصال؛ التحديات؛ تدريب.

1. Introduction

The abbreviation of 'ICT' stands for Information and Communication Technologies. The demands of modern society require constant technological change that is affecting many fields including education. English is considered as the first medium that transmits knowledge and technology worldwide. For this reason, it is crucial to integrate technology instruments like the computer and mobile phones into EFL teaching and consider them as more effective than previous traditional instructing tools.

In fact, teachers endure hard time explaining difficult concepts and abstract words or items; they are in need of powerful tools to present lessons content, expose authentic language learning situations and to picture or embody the target language cultural aspects. Thus, interactive learning environment provided in the classroom would alleviate teachers' burdens, facilitates comprehension and captures the attention of nowadays e-learning generation.

This work of research is meant to meet the needs of foreign language teachers who lack ICT knowledge but are eager to find ways in which they can adopt technology to enhance language teaching. It incites them to reconsider technical problems and pedagogical difficulties encountered when incorporating ICT. Another purpose of this work is to explore teachers' current beliefs and perceptions about ICT and to shed light on their previous attempts to integrate them. It aims also to reveal the major barriers and demotivating factors that prevent teachers from infusing ICT in their teaching practice in secondary schools. Three research questions are formulated to guide this research:

- a) Do EFL teachers attempt to integration ICT in secondary education?
- b) How often do they implement ICT in them in the classroom practice?
- c) What challenges and demotivating factors hinder the incorporation of technology tools to innovate teaching?

These questions give way to some assumptions about the nature and the efficiency of infusing ICT. The research seeks to determine the factors and conditions of technology integration; and whether technology tools appeal to EFL teachers at the level of secondary schools. Coping with technology integration challenges in schools may not surely guarantee good teaching practice. Therefore, the following hypotheses are put forward:

- a) It is assumed that teachers with positive attitudes towards technology would be more confident and competent in incorporating technology in EFL classes. Opening up to ICT is likely to help gain use experience to innovate their EFL teaching by incorporating new lessons' support.
- b) Providing technological facilities and full access to resources besides appropriate training for teachers could ensure frequent ICT infusion inside classrooms. Thus, equipment availability and access ease technology integration and pave the way for teachers to reflect on the right method to adopt to infuse in the teaching process.

- c) The lack of pedagogical training and support refrain most teachers from innovating the process of teaching with the support ICT instruments. Consequently, the well-trained teachers would better manipulate technology tools and acquire a how-know to install software and browse the web to benefit from online educational resources.

To undertake the stated research hypotheses, an explorative method is adopted for investigation by administering a semi-structured questionnaire at random to English language teachers in AinTemouchent secondary schools. Both qualitative and quantitative data are compared and interpreted phase. This article, first, will give a glimpse of previous studies in the technology field and its connection to teaching, then; will provide the methodology adopted in collecting data, population sampling and data analysis. Finally, this paper provides a summary of the research findings and what the teachers are recommended to do to ensure an effective teaching based on technology integration.

2. Previous ICT Integration Research

Apart from verbal communication, tools integration started with the use of the blackboard in the Grammar Translation Method, followed by the overhead projector some years later. Those tools suited the teacher-dominated classroom. Then, there were the “drill and practice” grammatical activities in the form of early computer software (Warschauer & Meskill, 2000). The audio-tape helped oral repetition in oral learning in the audio-lingual method between the 1970's and the 1980's ;but, whether in labs or classroom, repetitive drills emphasized form rather than communicating meaning. The next decade (the nineties) witnessed a move to the communicative teaching method. In this method, the emphasis is on students' interaction, engaged in authentic communicative situations. According to (Warschauer & Meskill, 2000), language is considered more as a communicative and a social act; so, there are two main approaches were adopted: the cognitive and the socio-cognitive approaches. For Rogers (2003) ICT integration is the individual's decision to make an innovation as the best solution available.

2.1 ICT integration in EFL teaching

Tomei (2003, p.183) stated that the use of technologies in foreign language classroom has developed over the years. Technology enhances basic instruction reinforces the traditional teaching methods and makes language programmes richer. Tomei (ibid) looked into software and internet websites. They both provide reinforcement in learning by reviewing and reexamining the language points deeper so that students could understand in real life situations. Since learning a foreign language is cumulative in nature, technology provides necessary reinforcement, variety and excitement that assist learners in memorizing concepts and skills. Technology also enriches and helps to retain longer what is in textbooks.

Teachers can inspire their students by doing activities related to the World Wide Web. The teacher desiring to reinforce his classroom teaching introduces his students to some of the educational websites that improve their EFL learning abilities. The sites most recommended are those proposing remedial work and an opportunity to study on several levels at the same time. They must be appropriate to their students' age and level and should incite their higher-order thinking by:

-providing an immersion approach (audio- visual).

-reinforcing activities that support the textbook content.

2.2 Factors Influencing ICT Adoption

There are various factors encouraging and discouraging teachers from adopting ICT in their teaching practice. Some are school-related and others are linked to teachers themselves.

2.2.1 School Related Challenges

The lack or limited access to technological equipment within schools constitutes a major obstacle towards the use of modern technologies. In a British Educational Communications and Technology Agency (BECTA) survey, teachers did not have access to ICT resources as some of the respondents referred to the lack of physical availability while others referred to the poor quality of ICT equipment. as reported by Bradley & Russell, 1997; as cited in BECTA, 2004).

2.2.2 Teacher Related Challenges

School inconvenient conditions, equipment availability and access are not the only obstacles. Psychological readiness and skills play a crucial role in technology integration.

There is evidence that attitudes towards technology influence its acceptance and integration in teaching (Huang & Liaw, 2005). Negative attitudes, however, lead to technology rejection. In fact, they make teachers resist change. There is an inherited resistance to change in the teaching profession, and it is a hindering ICT integration. Albangh (1997) & Veen (1993, as cited in Becta (2004:17), reported that teachers are generally suspicious about new claims. The integration of new ideas is not expected without proof of their effectiveness. Technology is only useful when applied into a context. Without understanding how it can be integrated in lesson planning, teachers may not grasp its usefulness.

Researchers found out several factors influencing attitudes such as: age, gender, teaching experience or experience using technology, confidence and competence. Focusing on age factor, Lau & Sim, (2008) surveyed 250 secondary school teachers in Malaysia and found out that older teachers generally use computer technology in their classrooms more than the younger ones. Teaching experience also can enable teachers to adopt technologies in classrooms. In Netherland, a research conducted by (Drent & Meelissen 2008; as cited in Kennewell, 2004) showed that students-centered approach, positive attitude towards computer skills, and the teaching experience have a direct positive influence on the innovative ICT use in classrooms.

In a survey of about 3000 teachers, researchers confirmed that experience in using ICT, helps to better integrate it in teaching (Russell, Bebell, O'Dwyer and Tao, 2007).

Teachers who lack ICT skills may have a lack of self-confidence. Confidence and competence seem to exert a major impact on teachers' ICT integration. They are interrelated. The lack of one affects the other. Although teachers' negative attitudes are mainly due to the lack of competence, technological training can have a counter-effect in technology adoption. According to Slaouti and Barton (as cited in Andoh, 2012, p.146) it was the lack of ICT access, time pressures, lack of mentors and training. In another European study, teachers from Greece, Italy, Spain, Portugal and Netherlands were surveyed; they were found in short

of time to learn technology skills. They also had old or insufficient equipment, large classes, lacked both technical and pedagogical support. The lack of collaboration among teachers affected negatively their confidence and competence to integrate ICT (Peralta & Costa, 2007, as cited in Andoh, 2012, p.147).

It is also commonly known that teachers never have sufficient time for lesson planning, exam corrections and loads of pedagogical work. So, Snoeyink and Ertmer as cited in BECTA, 2004, p.9 reported it presented a significant barrier to ICT training and proposed to provide it during school hours.

2.2.2.1 Lack of Technology Skills and Training

According to the study of Somekh & Davis (2005), the ICT tool skills have to be acquired and mastered. Inappropriate training would lead to inadequate use of technology in and out of the classroom. Sometimes it would lead to no use of technology as it has been reported by Ebraik(2011).Lack of ICT skills is the one of the main causes behind teacher's refusal, demotivation and lack of confidence to use technology.

Training language teachers to use technology for pedagogical purposes is part of teachers' development throughout their teaching careers. Kennewell (2004,p.13) thinks that although a teacher is teaching a subject other than ICT, getting a general ICT background, skills and aptitudes will be very helpful to him.He also indicated requirements for teachers initiating the teaching profession: a team of specialists to assist teachers, among them an ICT coordinator to lead and promote its effective use in the curriculum.

In order to gain experience in using technology, teachers must achieve some technology standards.According to educationists, the rationale behind the teachers' training is to use ICT in schools and change pedagogy: like to use ICT in context, to accomplish educational objectives, and serves both traditional styles like lectures and modern ones through mediated learning environments. Before initiating the teaching profession, Kennewell (2004)suggested to require teachers to pass Initial Teacher Training (ITT) courses.To integrate ICT inside secondary schools classes, policy makers need to choose among the well-known models of integrating ICT in teachers' pre-service training; the *Welliver InstructionalTransformationModel(1990)* is the closest one to this study . Trainees would be progressing through five hierarchical states in order to integrate ICT effectively in the pre-service teacher training.

Table 1. Welliver's Instructional Transformation Model (1990)

<i>1.Familiarisation</i>	Teachers become aware of technology and its potential uses.
<i>2.Utilization</i>	Teachers use technology, but minor problems will cause teachers to discontinue its use.
<i>3.Integration</i>	Technology becomes essential for the educational process and teachers are constantly thinking of ways to use technology in their classrooms.
<i>4.Reorientation</i>	Teachers begin to re-think the educational goals of the classroom with the use of technology.
<i>5.Revolution</i>	The evolving classroom becomes completely integrated with technology in all subject areas. Technology becomes an invisible tool that is seamlessly woven into the teaching and learning process.

Source: Wright & Macrow(2006) *Integrating ICT in Pre-service Teacher Education Reframing teacher education*, University of Warwick, 6-9 September,p1.

This model illustrates integration in a linear way from familiarization with technology to its utilization. Then, comes the manipulation stages and from both reorientation and revolution as considered innovative technology use, according to Wright and Macrow(2006). Overcoming technology integration difficulties can be solved through leadership, training teachers and their commitment to use it whereas Shelly (as cited in Wrigh & Macrow , p.6, 2006) insists that good ICT training would enable teachers to link active learning and teaching, develop leadership skills, use authentic material in the classroom and become more reflective when designing curriculum technology integrated activities.

He assumes that modern teaching sets out advanced teaching approaches and assessment tasks based on technology requiring such complex instructions. Thus, this will incite trainee teachers to skip step 1 to 3 of Welliver’s mode and emphasis more on steps four (4) and five (5).

Below are listed the pre-service teachers’ aptitudes indicators Upon the closure of their preparation programme (Patru et al., 2002). Teachers should be able to:

- demonstrate a sound understanding of technology operations and concepts
- plan and design effective learning environments and experiences supported by technology
- apply technology-enhanced instructional strategies to support learners’ needs.
- identify and locate technology resources and evaluate them for accuracy and Suitability.

2.2.2.2 In-service teacher training

Contrary to the pre-service training, the in-service training is generally provided to teachers during the period of their work to renew their teaching methods and approaches or tools. Venezky (2004) reports that the integration of ICT in teaching English to EFL students requires from teachers to upgrade their know-how to get the needed ICT competency so as to use it efficiently and creatively in their classrooms. The required training should enable teachers to:

- Identify individual learners’ problems and needs;
- Make a careful choice concerning the use of the media;
- Check the truthfulness of information content before presenting it in class;
- to conduct effective online research to get useful resources.

3. Methodology

This design has concept of the case study as it focuses on a particular population through by sampling and it explores participants’ perceptions about ICT use frequency, obstacles and perspective in the leaning process. This is done by mixing qualitative and quantitative data, which were collected by a semi-structured questionnaire.

An appropriate number of participants are needed especially in large-scale studies (Broughton, Brumphit, Flavell, Hill & Pincas, 2003). Almost all social sciences researches have human participants involved in contrast to research in science, physics or chemistry.

A sample is a subgroup of the target population that the researcher plans to study for generalizing about the target population.

(Creswell, J.W., 2012, p.142)

The selected Sample population are EFL teachers of secondary schools in the town of Ain Temouchent, aged between 25 to 60 years. This population is representative schools at this level in other schools in the same town. They are selected at random; since the most commonly used method of selecting participants is Randomization (Geoffrey et al.2005).

3.1 The Data Collection Tool

The research instrument adopted is a semi-structured questionnaire. It is made-up from open-ended and close-ended questions to collect mixed data: quantitative and qualitative. Researchers consider questionnaires as popular tools used to gather data when making research in various domains such as sociology, psychology and education (Griffiee, 2012). The questionnaire was administered to 93 participants who were attending a seminar organized in Maliha Hamidou Secondary School; 67 participants completed it: 55 females and 12 males.

According to Mertens (2010) much research in education is done with available population. The participants were divided into 3 ages categories: the [24-30], [31-40] and [41-60]. The questionnaire collected background information of the participants such as gender, age, and the variables of teaching experience and the experience of ICT use, as well. The same context questions are combined and analyzed separately. The first section reports data about ICT uses, frequency and accessed resources besides curriculum requirements. In section 2, the focus is on attitudes while the third one concerns training and support. The last section investigate the challenges and difficulties participants face while integrating ICT.

The questionnaire was piloted to see whether it contains any deficiencies. To improve this instrument, it was first tested on a small population selected randomly. Then some ambiguous questions were corrected. Other questions were simplified and those creating confusion were skipped. To make the questionnaire a valid instrument, it was constructed to fit its purpose i.e. collecting data in an efficient way to be reliable. There must not be another alternative plausibility or explanation of the reached results (Marczyk G., et al., 2005). To reduce measurement error and make it reliable, more vocabulary choice is adapted to the convenience of both the certified teachers and the beginners. It contained tables and structured questions that enable testing and scoring consistency. To minimize threats of internal validity, the instrument is made more reliable by piloting; and it is re-arranged to avoid bias. External consistency is recommended to minimize the threats and ensure objectivity; for 'the extent to which the findings of the study are relevant not only to the research population, but also to the wider population' (Mackey and Gass 2005, p.136). As an ethical procedure, the participants were administered the questionnaire after they verbally granted their consent.

3.2 Data analysis

A preliminary data analysis has enabled testing the hypotheses and offering an overview of the research. Quantitative and qualitative type of data are collected, cleaned and prepared before analysis according to Cohen and Manion (2007) who suggested first to

prepare data for analysis by cleaning to draw out errors made by the participants. This operation requires completeness of answers, accuracy and uniformity steps

The data derived from this questionnaire are quantitative. Tabulations, graphs and histogram are drawn to illustrate the gathered data. The Questionnaire embodies closed-ended questions to collect qualitative data; these are reporting frequency data. Questions like “how often” and “how many” are used to measure the score and frequency in section one. Nominal data denoted different types of ICT devices. In section two, the data representing the attitudes are measured in Likert Scale tabulation. In section three, data of ICT training are obtained by Multiple Choice Questions (MCQ). Correlation is made between the research variables like attitudes, ICT skills experience and the rate of ICT integration in classes.

4. Findings

The response rate is 72, 04 % and the questionnaire results are analyzed according to research variables of: attitudes, experience using ICT, the teaching experience. Analysis is according to the research variables of age, teaching experience and ICT experience and skills.

4.1 ICT Attitudes, Beliefs and Perceptions

Teaching attitudes and opinions reflect how teachers perceive ICT incorporation in classes. The teacher has an efficient role, beside other factors, in developing education but this relies, primarily, on his attitude in the classroom environment (Singh, 2012, p.1). The following table measures those affecting teachers’ own skills and learners’ abilities, according to Likert Scale, a psychometric scale used to obtain participants’ attitudes and preferences:

Table 2. ICT Beliefs and Attitudes

ICT Beliefs and Attitudes	S A	A	UN	D	S D
-It is important to find different ways to use computer in the classroom.	62,68 %	14,92 %		1,49 %	/
-Using a computer in an ELT classroom is a priority.	38,80 %	7,46%		40,2 9%	1,49 %
-Learning how to use technology tools is a teacher’s professional goal to accomplish.	52,23 %	23,88 %	1,49 %	5,97 %	1,49 %
-Pupils’ interest, needs and suggestions are necessary when planning technology related activities.	68,65 %	10,44 %	2,98 %	8,95 %	/
-ICT incites pupils to focus more on learning and try harder.	32,83 %	46,26 %		4,47 %	2,98 %
-ICT enables pupils to understand and recall information more easily.	43,28 %	41,79 %	4,47	4,47 %	/

SA: Strongly Agree, A: Agree, Un: Undecided, D: disagree, SD: Strongly Disagree

Some attitudes had high responses from participants than others. From 62,68 to 77.61% % of the informants are motivated to find different ways to use the computer in classroom teaching. But more than half do not consider the use of computer as a priority. 68,65% believe that teachers should consider their pupils interests, background experiences and preferences before planning ICT based activities. The table reveals that 52,23 % have a desire to improve their technology skills and knowledge as part of their professional

development. Nearly 80 % consider that ICT incite pupils to concentrate more on learning by trying harder. Almost all (85,07 %)believe that ICT help learners to easily recall information. To conclude, the results obtained generally revealed positive perceptions about technology integration in classes.

4.2 ICT Experience and Frequency of Integration

The participants ICT experience of integration were scored using the table below:

Table 3. Participants ICT Experience in Secondary Schools

Teachers' ICT Experience	None (no experience)	At Least Once	1 week- 9 months	1-2 years and More	Total of Experienced Teachers
<i>Number of Participants</i>	29	20	11	07	38
<i>Percentage of ICT Experience</i>	43,28 %	29,85 %	16,41%	10,44%	56,71%
<i>Participants who Integrate ICT</i>	05	18	11	7	41
<i>Global Percentage of Integration</i>	17,24%	90%	100%	100%	61,19%

It is noticeable that the general integration rate is quite high.it is rising in accordance to participants experience level. As in the categories of “at least once”, 90% integrate ICT in classes and category “1week-9months” and between “1-2 years” both have scored 100%. Therefore, we deduce a correlation between experience using ICT and the rate of its integration, though we precise that number of teachers with long ICT experience is considerably low (7 only).

4.3 Frequency of ICT Integration

From ‘*How long have participants been integrating ICT?*’ to ‘*How often they integrated it in classes?*’. Results measuring ICT integration frequency on age basis, scored 41,79 % of the participants in ‘rarely’ option; but about 20 % ‘sometimes’ do while 38,80 % ‘never’ did. Hence, all scores are below 50%. It is mainly centered in the category in the middle of the career between [31-40] aged-category with a score of 24% which is not very significant; even though it is higher than the score of the two other categories respectively: the more experienced [41-60], 18,51 % and the first[25-31], 13,33%. Then, we conclude that introducing ICT is not a frequent practice in EFL classrooms.

Do participants with more ICT experience integrate it more than others in classroom teaching? After examining the results *on the basis of ICT experience* influence on integration, it was found that none of the participants incorporate ICT as a usual practice in classrooms. It is rather occasional or rare. For example, those who possess previous experience of ICT under the category of [one week - 9 months], 54,54% of them “sometimes” integrated it in classrooms. The classroom frequency grows higher to 85,71% under two years experience; however, this is still centered in “sometimes” option. As expected, the big majority (82,75%) of participants with *little* or *zeroexperience* have never used ICT in classes.

This reflects high correlation between ICT manipulation experience and its integration frequency inside classrooms. Previous experiences in handling technology tools directly affect integration in classrooms.

4.4 Difficulties and Challenges

Difficulties constitute a major obstacle towards the implementation of ICT in EFL classes in Ain Temouchent secondary schools. ICT integration starts with access, facilities and technological resources that the schools provides to support EFL teachers.

4.4.1 Insufficient Access and Facilities

When Algerian policy makers explicitly urged teachers in secondary education guide to integrate ICT in the teaching process through the curriculum of 2011, they did not provide access to the technology resources within schools, though. Mumtaz (2000, p.336) indicated (as cited in Al Mulhim, 2014) that insufficient resources in schools constitute obstacles to ICT adoption. Consequently, 60% of participants integrated ICT in classrooms as a personal initiative. Half of the participants (32,83%) did it because of curriculum requirements. Because of access problems in Temouchent schools,22,38% of the participants used their own mobile phones to illustrate some language items whereas 35,82% of them used data-show to either project videos or present pictures slides; two others had old projectors while 9 participants brought their audio-tapes or CD's for listening or to do oral work purposes.

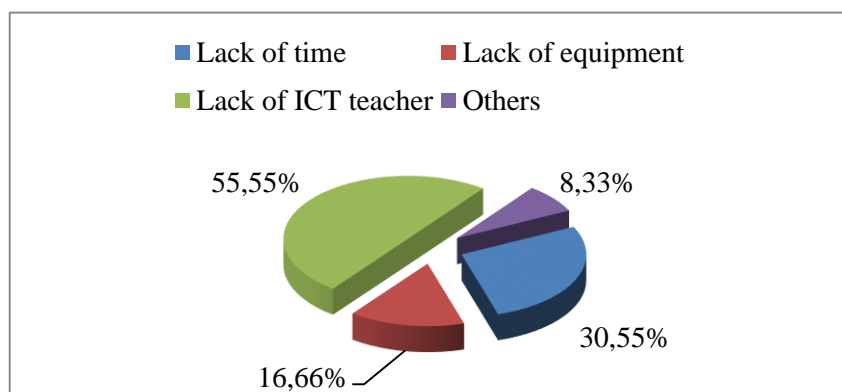
In addition to that, nearly 80 % of the participants reported that their schools posted no official planning for ICT use for pedagogical purposes. There was no schedule to organize interdisciplinary ICT access. Consequently, the lack of organization and planning made tools access difficult; which usually discouraged teachers from incorporating technology.

4.4.2 Insufficient Training and Support

Positive attitudes and equipment availability cannot guarantee technology integration if teachers do not have the craft or the expertise of using ICT tools instruct their learners? Therefore, two types of training are needed to empower teachers' to implement ICT in Classes: technical training and pedagogical training.

The results showed that more than half of the participants did not benefit from any training while 30 others did. The latter group was not satisfied of the quality of training, among 30, just 2 considered it as good, and 4 others estimated it as helpful enough to use ICT in class. However, 53,33 % judged their training as insufficient and unrelated to pedagogy needs. The reasons behind insufficient training consist of many obstacles that are represented in the Pie-chart below.

Figure 1. Reasons for Insufficient ICT Training



The most important is the *lack of ICT teacher* that (55, 55 %) of participants complained about it. The next one is *the lack of time* by 30, 55% : long hours of teaching and full time schedule over the day and at night time they are further busy with lesson preparations, homework or exams corrections. The following significant obstacle is related to *the lack of*

equipment which affected (16.66%) of teachers. We conclude that even the population of 44,77% that benefited from some technical training had faced difficulties in the process of the course.

When technical and pedagogical training are inefficient, supporting teachers is definitely needed to implementing ICT in classrooms. The findings, however, revealed that the great majority of participants (67,16%) did not receive any assistance. which means that they had to rely on themselves. 14,92% mentioned a rare help from ICT knowledgeable colleague. Insufficient support made 11,94% turn to seek help from outside schools: informatics experts, engineers or teachers of computing in private schools. It can be overtly stated that a large majority of teachers had to adopt for plan "B" in order to innovate their daily teaching practice

4.4.3 Insufficient Pedagogical Training

Pedagogical training is vital and take place after the technical training. Thus, as reported by Hennessy, Ruthven and Brindley (2005) trained teachers have changed their pedagogy and role in the classroom and identified the objectives of technology integration. The table below reports findings of participants' pedagogical training.

Almost 60% of the participants have not benefited from ICT pedagogy training whereas 10,44 % of them has been trained for a period between 15 to 30 days. Only 5% benefited from a period of 3 months while a similar group was trained for six months. Only 7,46 % were trained to use laptops or computers or head projectors but other participants did not specify the training period. (68, 65%) did not receive any training about e-mails, blogs and internet forums; only 2% relied on their own resources. Most of them (85%) complained of not receiving ICT training for pedagogical purposes; practically secondary school teachers were left unqualified.

It is, usually, individual teachers who take the initiative to implement technology into his/her classroom, as reported by (Lave & Wenger, 1991, p. 98; as cited in Motteram, 2013). That was the case of 10 participants who paid for personal self-training in their own time, 8 of them had it outside school for a period between one to six months. Unluckily, this type outside school circles covered only basic computer functions and applications and did not include pedagogy.

5. Conclusion

This study is an exploration of teachers' perception of technology tools, the conditions and the frequency of their integration to enhance pedagogy, and the various barriers encountered by teachers while using technology in classrooms.

According to research findings, most participants had positive perceptions about ICT. They strongly agreed on the utility of technology infusion in classrooms. Most of them approved like technology role in improving learning notably processing and recall information more easily. However, due to access and facilities difficulties, many integrated ICT as a personal initiative rather than on curriculum requirements demands.

Results indicated that participants with positive attitudes are those who already possess a previous 'individual' experience in integrating technology. The availability of technology equipment and resources in schools do not guarantee integration without training teachers and supporting them in daily practice. Contrary to that assumption, instruments in schools were either insufficient or in bad condition. Besides, there is the lack of ICT leaders and professional support.

Besides the schools' lack of organization, facilities and equipment, the findings revealed that the great majority received neither technical nor pedagogical support. In effect, less than half of the teachers received some technical training; but it was insufficient for

teaching objectives and unrelated to pedagogy. Consequently, this had negatively affected teachers' capacities, added to insufficient of support in the school environment. The integration of ICT in classes measured low frequency and did not reflect educational expectations.

To conclude, we can say that ICT integration is still in its early stages and is based on traditional way of teaching. The pedagogical integration of ICT is still a milestone; they need to go through other steps as adaption and appropriation to innovate. EFL teachers should seek continuous technology training and support; and are urged to collaborate and assist one another to overcome technology challenges. Schools, on the other hand, ought to purchase the needed tools and make the classrooms more technology-fit. A fair-ICT-sharing time-table has to be scheduled, beside appointing an ICT leader at the level of each secondary school to collaborate with designed proficient trainers.

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